



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/653,758	09/03/2003	Richard Wynn II	268-02	3677

2746 7590 06/21/2005

WILLIAM H. EILBERG
THREE BALA PLAZA
SUITE 501 WEST
BALA CYNWYD, PA 19004

EXAMINER

BUSHEY, CHARLES S

ART UNIT	PAPER NUMBER
----------	--------------

1724

DATE MAILED: 06/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/653,758

Applicant(s)

WYNN, RICHARD

Examiner

Scott Bushey

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-20 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 12, and 17-20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Choi et al (Figs. 4a and 4b; col. 3, line 58; col. 4, line 27; col. 5, lines 12-63).

Applicant should note that the only structures (140, 152) that could be construed as barriers in contact with the perforated sheet (110) are located at the inner and outer ends of the sheet, respectively. Further, the disclosure as set forth in col. 5 of the reference with respect to the embodiment of Figures 4a and 4b clearly indicate that all of the gas entering the apparatus through inlet channel (160) passes upwardly through perforations (111) of sheet (110), while the pressure difference between the gas below the sheet and the gas above the sheet is the sole driving force for conveying liquid through the liquid transfer channel (140) from the reservoir and into the outlet area of the apparatus.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

Art Unit: 1724

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Choi et al taken together with any one of Gunn, Butz, or the brochure from WetAer Wave, entitled All Stainless Construction Wet Dust Collector.

Choi et al (Figs. 4a and 4b; col. 3, line 58; col. 4, line 27; col. 5, lines 12-63) as applied above substantially disclose applicant's invention as recited by instant claim 5, except for the blower being positioned within the apparatus so as to pull the gas through the apparatus rather than push the gas through.

Any one of Gunn (Fig. 1), Butz (Fig. 1), or the brochure from WetAer Wave, entitled All Stainless Construction Wet Dust Collector (front page, the section headed as "HOW DOES IT WORK?") disclose a gas scrubber similar to that of Choi et al, wherein the blower is arranged downstream of the scrubbing means rather than upstream thereof. It would have been obvious for an artisan at the time of the invention, to modify the placement of the blower to the downstream end of the apparatus, in view of any one of the alternative secondary references, since such would prolong the life of the blower by only subjecting it to clean, cool gas, rather than particle laden incoming gas, which would tend to erode the vanes of the blower.

5. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choi et al taken together with Fetters et al.

Choi et al (Figs. 4a and 4b; col. 3, line 58; col. 4, line 27; col. 5, lines 12-63) as applied above substantially disclose applicant's invention as recited by instant claims 6

Art Unit: 1724

and 7, except for the inlet channel having an inlet ramp forming a maximum constriction at the point of connection with the perforated plate.

Fetters et al (Figs. 1 and 2; page 1, lines 42-47) disclose a gas cleaning apparatus similar in construction to that of Choi et al, wherein the inlet channel has an inlet ramp forming a maximum constriction at the point of connection with the perforated plate, as recited by instant claims 6 and 7. It would have been obvious to an artisan at the time of the invention, to modify the apparatus as taught by Choi et al to provide an inlet channel constriction at the perforated plate so as to induce inlet flow by venturi effect, in view of Fetters et al, since such modification would each lend to increasing the efficiency of the apparatus, in a manner well understood within the art.

6. Claims 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choi et al taken together with Gunn.

Choi et al (Figs. 4a and 4b; col. 3, line 58; col. 4, line 27; col. 5, lines 12-63) as applied above substantially disclose applicant's invention as recited by instant claims 8 and 11, except for the wave breaks being arranged under the sheet and the silencer baffle being located before the outlet opening.

Gunn (Fig. 1) discloses a gas scrubber similar to that of Choi et al, wherein wave breaks (6) are provided below the perforated sheet and silencer baffles (7) are provided below the outlet opening. It would have been obvious for an artisan at the time of the invention, to provide the apparatus of Choi et al with wave breaks below the perforated sheet and silencer baffles below the outlet, in view of Gunn, since such would reduce fluctuations in the characteristics of the outlet gas stream caused by inlet stream

Art Unit: 1724

disturbances, as well as reducing noise pollution from the high gas flow velocity through the apparatus.

7. Claims 9, 13, 14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choi et al taken together with Gunn and Yuzawa.

Choi et al (Figs. 4a and 4b; col. 3, line 58; col. 4, line 27; col. 5, lines 12-63) as applied above substantially disclose applicant's invention as recited by instant claims 9, 13, 14, and 16, except for the wave breaks being arranged under the sheet and above the sheet, and the silencer baffle located below the outlet opening.

Gunn (Fig. 1) discloses a gas scrubber similar to that of Choi et al, wherein wave breaks (6) are provided below the perforated sheet and silencer baffles (7) are provided below the outlet opening.

Yuzawa (Fig. 1) discloses a gas scrubber similar to that of Choi et al, wherein wave breaks (5) are provided above the perforated sheet (4) and silencer baffles (7) are provided below the outlet opening. It would have been obvious for an artisan at the time of the invention, to provide the apparatus of Choi et al with wave breaks below and above the perforated sheet and silencer baffles below the outlet, in view of Gunn and Yuzawa, since such would reduce fluctuations in the characteristics of the outlet gas stream caused by inlet stream disturbances, as well as reducing noise pollution from the high gas flow velocity through the apparatus.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Choi et al taken together with Butz.

Choi et al (Figs. 4a and 4b; col. 3, line 58; col. 4, line 27; col. 5, lines 12-63) as applied above substantially disclose applicant's invention as recited by instant claim 10, except for the sludge ramp located within the reservoir to direct sludge to a collection point. It should be noted that Choi et al discloses the use of a draw off pipe (181) to remove particulates accumulated within the reservoir.

Butz (Fig. 1) discloses a gas scrubber similar to that of Choi et al, wherein the reservoir thereof is provided with a sludge ramp to direct sludge to a collection point. It would have been obvious for an artisan at the time of the invention, to provide the apparatus as taught by Choi et al with a sludge ramp, in view of Butz, since such would facilitate a convenient means for removing accumulated particulates from the reservoir that have been removed from the scrubbed gas stream.

9. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over the reference combination as applied to claims 9, 13, 14, and 16 above, and further in view of Butz.

The reference combination as applied to claims 9, 13, 14, and 16 above substantially discloses applicant's invention as recited by instant claim 15, except for the sludge ramp located within the reservoir to direct sludge to a collection point. It should be noted that Choi et al of the reference combination as applied to claims 9, 13, 14, and 16 above, discloses the use of a draw off pipe (181) to remove particulates accumulated within the reservoir.

Butz (Fig. 1) discloses a gas scrubber similar to that of the reference combination as applied to claims 9, 13, 14, and 16 above, wherein the reservoir thereof is provided

Art Unit: 1724

with a sludge ramp to direct sludge to a collection point. It would have been obvious for an artisan at the time of the invention, to provide the apparatus as taught by the reference combination as applied to claims 9, 13, 14, and 16 above with a sludge ramp, in view of Butz, since such would facilitate a convenient means for removing accumulated particulates from the reservoir that have been removed from the scrubbed gas stream.

Response to Arguments

10. Applicant's arguments filed June 9, 2005, with respect to claims 12, and 17-20 have been fully considered but they are not persuasive. It is noted that applicant has not argued the rejection of claims 12, and 17-20 over Choi et al, as applied in the previous Office action.

11. Applicant's arguments with respect to claims 1-11, and 13-16 have been considered but are moot in view of the new grounds of rejection.

Conclusion

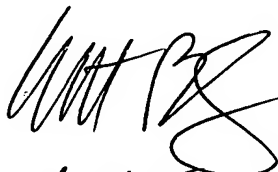
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Bushey whose telephone number is 571 272-1153. The examiner can normally be reached on M-Th 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1724

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Scott Bushey
Primary Examiner
Art Unit 1724


6-16-05

csb
6-16-05